

NTE1027 Integrated Circuit Module – Hybrid, Audio Power Amplifier

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Maximum Supply Voltage, V_{CCmax} 48V
 Operating Case Temperature, T_C $+90^\circ\text{C}$
 Storage Temperature Range, T_{stg} -30° to $+100^\circ\text{C}$
 Available Load Shorting Time ($V_{CC} = 32\text{V}$, $P_O = 10\text{W}$, $R_L = 8\Omega$, $f = 50\text{Hz}$), t_s 2sec

Recommended Operating Conditions: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Supply Voltage, V_{CC} 32V
 Load Resistance, R_L 8Ω

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 32\text{V}$, $R_L = 8\Omega$, $R_g = 600\Omega$, $f = 1\text{kHz}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Current	I_{CCO}		10	20	50	mA
Output Power	P_O	THD = 1%	10	13	–	W
Voltage Gain	VG	$P_O = 100\text{mW}$	32	33	34	dB
Total Harmonic Distortion	THD	$P_O = 100\text{mW}$	–	–	0.5	%
Input Impedance	r_i	$P_O = 100\text{mW}$	20	40	–	$k\Omega$
Output Impedance	r_o	$P_O = 100\text{mW}$	–	0.2	–	Ω
High Level Cut-Off Frequency	f_{CH}	$V_i = 50\text{mV}$, -3dB	50	–	–	kHz
Low Level Cut-Off Frequency	f_{CL}	$V_i = 50\text{mV}$, -3dB	–	–	30	Hz
Power Bandwidth	PBW	THD = 1%, $\pm 3\text{dB}$	30 to 30k			Hz
Output Noise Voltage	V_{NO}	$R_g = 2.2k\Omega$	–	–	1.2	mV

Pin Connection Diagram
(Front View)

